The opinion in support of the decision being entered
today was <u>not</u> written for publication in a law journal
and is <u>not</u> binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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<u>Ex parte</u> WAYNE A. MCLAREN, ANTHONY INGENOSO
and PAUL C. PERRITT

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Appeal No. 2001-1206
Application No. 08/588,942

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ON BRIEF

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Before KRASS, GROSS and BARRY, <u>Administrative Patent Judges</u>.

KRASS, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

   This is a decision on appeal from the final rejection of

claims 1-10, 12-23, 25-36 and 38-45.

   The invention is directed to a method and system for

executing a program under one of a plurality of mutually

exclusive operating systems without having to reboot the entire

system. When a secondary operating system is required to run a

particular program, work in progress by the primary operating

system is temporarily suspended, but not terminated, wherein the

software state of the computer system is saved until a subsequent

restoration of the primary operating system, after running of the

program by the secondary operating system. This is made possible

by the use of a "shell" from which the program in the secondary

operating system is executed, constraining the secondary

operating system such that another program cannot be invoked

under the secondary operating system until after control is

returned to the first operating system.

Representative independent claim 1 is reproduced as follows:

1. A method within a data processing system for executing a
program under one of a plurality of mutually exclusive operating
systems, said data processing system having a nonvolatile mass
storage device, a volatile memory, and a processor, said method
comprising:

in response to invocation of a program which executes under
a second operating system among said plurality of operating
systems while said processor is executing a first operating
system among said plurality of operating systems, automatically
performing the steps of:

causing said data processing system to achieve a quiescent
state;

determining a state of said first operating system from
contents of said volatile memory;

storing said state of said first operating system within

either said volatile memory or said nonvolatile mass storage
device;

loading at least a portion of said second operating system
into said volatile memory in response to said storage of said
state of said first operating system; and

thereafter, executing said program under said second
operating system, wherein executing said program under said
second operating system comprises executing said program from a
shell that constrains said second operating system such that
another program cannot be invoked under said second operating
system until after control is returned to said first operating
system.

The examiner relies on the following references:

Moore et al. (Moore)   5,696,975   Dec. 9, 1997
                                          (filed Nov. 26, 1996)
Crump et al. (Crump)   5,715,464   Feb. 3, 1998
                                          (filed Jun. 7, 1995)

Cutler et al. "SCO UNIX in a Nutshell," A Desktop Quick Reference
for SCO UNIX & Open Desktop, O'Reilly & Associate, pp. 69, 139,
144-145.

Claims 1-10, 12-23, 25-36 and 38-45 stand rejected under

35 U.S.C. 103. As evidence of obviousness, the examiner cites

Crump in view of Cutler with regard to claims 1-10, 12-23, 25-36,

38 and 39, adding Moore to this combination with regard to claims

40-42. It is not clear whether claims 43-45 are rejected because

they do not appear in any statement of rejection in the answer.

However, we presume they stand rejected under 35 U.S.C. 103

because the examiner mentions them at page 7 of the answer in the

sense of the claims being rejected.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

At the outset, we note that, in accordance with appellants' grouping of claims, at page 5 of the principal brief, all claims will stand or fall together. Accordingly, we will focus on independent claim 1.

With regard to claim 1, it is the examiner's position that Crump discloses the invoking of a program which executes under a second operating system among a plurality of operating systems. At page 3 of the answer, the examiner also lists the other steps of the claim and corresponding portions of Crump. However, the examiner recognizes that Crump does not recite executing the second operating system from a shell, as claimed. The examiner turns to Cutler and identifies pages 144, 139 and 69 as teaching the execution of a second operating system from a shell, concluding that it would have been obvious "to execute the operating system through a shell for the reason set forth on page

144" [answer-page 6].

　　We REVERSE.

　　While we are unsure of the "reason" set forth on page 144 of Cutler, we are willing to give the examiner the benefit of the doubt that Crump discloses the claimed invention but for the execution of the second operating system from a shell and that Cutler discloses the execution of a second operating system from a shell. Even so, and assuming there was an adequate motivation to combine these teachings, we still fail to find, within the applied references, a teaching that the shell which executes the program under the second operating system "constrains said second operating system such that another program cannot be invoked under said second operating system until after control is returned to said first operating system," as claimed.

　　The examiner responds to this by stating, at page 9 of the answer,

> Cutler simply show that the programs from UNIX SVR2 could be executed on the second operating system UNIX SVR3 [through UNIX shell] and another program cannot be invoked under second operating system because, execution is done through UNIX SVR3 shell and not UNIX SVR2 shell (keeping in min d that shell is a program that understand your command in this case UNIX SVR3 command).

We agree with appellants, at page 2 of the reply brief, that this statement is "nonsensical and unsupported" by any teaching of Cutler. As explained by appellants, since the UNIX system is a multitasking operating system that supports the concurrent execution of multiple applications by multiple users, the execution of a program under the UNIX SVR3 operating system of Cutler would not appear to preclude the concurrent execution of one or more other programs and we find nothing within Cutler that would contradict this.

Accordingly, we find nothing in the combination of applied references that would have suggested the claimed shell which "constrains said second operating system such that another program cannot be invoked under said second operating system until after control is returned to said first operating system."

Since each independent claim contains this limitation, we will not sustain the rejection of claims 1-10, 12-23, 25-36 and 38-45 under 35 U.S.C. 103.

The examiner's decision is reversed.

REVERSED


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ERROL A. KRASS                  )
Administrative Patent Judge     )
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ANITA PELLMAN GROSS             )  BOARD OF PATENT
Administrative Patent Judge     )    APPEALS AND
                                )    INTERFERENCES
                                )
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                                )
LANCE LEONARD BARRY             )
Administrative Patent Judge     )
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EK/RWK

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